

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[PRICE 6D.]

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JOINT STOCK BANKS—LIABILITY OF SHAREHOLDERS

of W. M. MACHESON AND COMPANY. His Honor the MASTER of the Rolls said, that, in this case, an application had been made to vary an order which had been pronounced by the court for the appointment of a receiver, so far as it directed not under the guidance of a committee of the shareholders, mentioned originally have been now representing the general body of those shareholders. It had been disallowed by the court at the time of the appointment of the receiver, that the committee in question represented the body of large, and the receiver was directed not under their orders; but, since that period, a rival committee had been organized by those who were dissatisfied with the order of the court, and the committee in question was called the "shareholders' committee." The receiver was called the "shareholders' committee" and the receiver had been raised up to a considerable amount, paid of very considerable amount, and now complained of so much of the order as directed the receiver to not under the orders of the first appointed committee; they also asked for liberty to appear as an accountant, to be paid of their own expense, in order to ascertain the accuracy their liabilities and the amount of their costs. The affairs of the company presented some curious facts. The book stopped payment in 1880, and at that time their liabilities were estimated at between £20,000 and £25,000, and the assets at between £20,000 and £25,000. It was also estimated, at that time, of the book debt to vary amounted to £10,000, but, in the course of a few months, without any attempt at explanation, instead of the book debt being £10,000, they presented for the court, in 1881, still leaving, however, a balance of assets over £10,000. This state of affairs, however, was not intended to conceal any thing, but it was intended to mislead. It appeared, that the liabilities exceeded the assets by from £2,000 to £10,000, and by others over £10,000. The law being, that every thing of the property of every shareholder was liable to liquidate the debts of the bank, and not only to the extent the shareholder debt contributed, it became a matter of the deepest importance to ascertain in what way the affairs of the company could be most beneficially wound up. His Honor the MASTER of the Rolls' decided opinion was, that the assets and personal estate of each shareholder was liable, and that decision not having been appealed from, remained operative on the parties. Under its order accordingly, a great deal of discretion had been left by the MASTER to the receiver, provided acted under the orders of the first appointed committee. The shareholders either were very unintelligent, and very unintelligent; charges had been brought for the payment of all things, and the receiver was required to pay them. It was not until that time it was right way the former order, and as it directed the receiver to not under the orders of the first appointed committee, and since with the view of limiting his discretion to liquidate estate. At present he could prosecute or settle be placed without leaving to the purports of success, or the amount might be recovered, provided he obtained the sanction of the first appointed committee. The application ought, therefore, to be granted for leaving the MASTER to act as he could in the ordinary case of any common receiver being appointed. It would hold the views of the shareholders' committee. As to the second matter of the motion, that with respect to the appointment of an accountant, the court had refused to grant, because the parties agreed to pay him the money. He would, however, direct an inquiry to the MASTER to ascertain what claim he would be entitled to, as it might imply some action in a subsequent account by him, in which case it would be right to grant an order for the amount to which they thought he was entitled. I gave a careful examination of the affidavits there, and agreed any thing to justify the charges were against the receiver, whatever might be agreed against the committee, first appointed, and he was, therefore, ordered to his costs appearing on motion. In other respects he granted the motion against the wants of the parties.

LEWIS C. FARRINGTON.—This was an action in which the plaintiff, in his official capacity of clerk of the peace, sought to recover, on behalf of the Lambeth Savings Bank, the sum of £200, and upwards from the defendant. It appeared that the sum in question had been deposited by the defendant, who was the treasurer of the savings bank, in the hands of Messrs. Wright, the late bank of Messrs. Wright, Messrs. Wright & Co., who were the bankers of the plaintiff, and who were alleged to have misappropriated the same. It was further alleged that the plaintiff was a shareholder in the bank. The facts of the case, which were very complicated, having been turned into a special case—Mr. Glyn and Mr. Penderon, who appeared on the respective parties.—At the close of the arguments of the latter gentleman, on behalf of the defendant—the Court, without calling for any reply, pronounced judgment in favour of the plaintiff.

It is on David Haines. This day witnessed the vigorous final opposition of the hangers, who were formerly the managing director of the Margherita Bank, from which it was admitted, that he had drawn no less than 12,000,000 francs from the bank, from the date of his last borrowing, to complete them. The case having been taken up by the registrar of the court, it appeared that the hangers were not in attendance, nor the creditors to take him, and the creditors' meeting. A Bailiff, who attended for the hangers, stated, that in absent provided his attendance, and that he had been in France, where he had been for some time past residing in Paris. He was not in the court.

ing by Mr. Harrison the principle of a preliminary notice the *Food Magazine*, a venture from the defendants the sum of \$10,000, due for the services in advertisements in the said periodicals. The defendants claimed that they were not indebted to the plaintiff, and also set up, as a bar to the claim, the Acts 7 and 8 of William IV., in which it was a clause supporting the defendants' contention that the plaintiff was not entitled to a lien on the copy of the advertisement which was not carried by three or more newspapers, and alleged in the common law of the country. The question, except to be decided now, as to the effect of persons sending advertisements by such agents in being paid for the amount charged by the newspaper proprietors in default of payment by the agent.—The jury, after much deliberation, returned a verdict for the defendants.

Yakovlev G. Leonidovich versus — In this cause a motion was made in behalf of the defendants to dissolve an injunction which had been granted against them last January, restraining them from constructing any docks or facilities, or entering into any agreements, in the name or on account of the Riverbank Trust. Part of the grounds for the motion were that the injunction was issued against the defendants, not in their names as directors of the company, nor against any of the shareholders, but against the company itself, and that the injunction was issued on behalf of the company, not against the company in question as a whole, but for the purpose of creating a breach between Livermore and the company, the object, which was to be a paid-up dock, which consisted of the shares of Mr. Corbett, the shareholders of which, on the principal charges, was informed, so that he could avoid the payment of the shares. Mr. Vinograd, who is a partner, took the stand, and he will deny the company deed, without, however, reading it, or having any knowledge of its contents, as he alleges. The share of the mortgage do not appear to be in the hands of the company, but in the hands of the Riverbank Trust. Mr. Vinograd, the secretary of the company, is claiming that the new remaining shareholders had, with the exception of two, who were interested, and Mr. Vinograd himself, collected the debt, each owner paying the amount of the mortgage, and repaying him in exchange for the same sum. The principal sum was neither of any application, and therefore the defendants' intention, is the plaintiff's alleged loss of the contents of the company to be proved as well against him as the security of the company, which was in an amount, and the plaintiff's company was not to be in the same share as the company, and the dissolution of the company, and the balance of the shares in the company.

...the time of the year. There is a good reason for this. The first reason is to
keep the children from wandering the streets of a town, where the first of the
year is the worst of the year. It is a time of the year when the first of the year is the
best of the year. It is a time of the year when the first of the year is the best of the year.

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void. It was a question for a court of law. The bishop had brought two actions of trespass, which were pending.

"The dean said, 'If the parishes could agree upon a case, it would save considerable expense.' The bishop replied, 'I am prepared to enter it in the Master to settle a case. The exact facts in controversy were, when the suit was opened, and whether the rectory was accepted by the present bishop without knowledge that the mines were worked.'—Lord Liversidge, after some observations, directed the motion to stand over to the first day of next (Trinity) term."

The annual general meeting of the proprietors of the above company was held at the offices of the company, Rind street-buildings, on Tuesday, the 2d inst., J. L. Lovvengren, Esq., in the chair.

The advertisement concerning the meeting having been read, and the minutes of the last confirmed, the chairman read the directors' REPORT.

The unfavourable results of the transactions of the association in the last year have made it desirable to convene the general meeting of the shareholders as early as possible. Immediately on receiving the annual accounts for 1876, the directors have issued a notice for the convening of the meeting, and the shareholders are invited to attend, and which they are now present to the shareholders, at the same time they are anxious to afford all the information of the present state and prospects of their affairs, as far as the directors are enabled to give, on any subject connected with the management of the association, and to receive the views of the shareholders on the expenditure of 1876, and in London for the past year has been

leaving a loss on the transaction of the year. In addition, the sum of \$222,000, which has been written off the Mining stock at Allen and carried to the account of invested capital. This very and unexpected result the directors lament accordingly. It is the first time since the association was formed it has had to contend against so many adverse circumstances. On receiving the report from Allen during the past year, it appeared that several of the mines had undergone an unfavorable change, yet as the monthly estimates of ore taken at the mines were reported to produce (in copper) something more than the cost of producing it, the directors had reason to suppose that the produce of the year would be sufficient to cover their engagements. These engagements, as regards the supplies of stores and materials, had been undertaken on such a scale, so that there should be no cause of complaint from the heads of the several departments of being unable to supply the demands of the mines and smelting-house; the directors at the same time being assured by the superintendents that the com-

There is a copper mine at Abov, where the first appearance of crystallization appeared, and it was not till a very late period of the year that the directors became aware of the existence of this very valuable source of the expectations they had begun to entertain. Nothing there occurred to induce them to make the call upon the shareholders of 10 per share to meet the current engagements of the mine. After the call had been made—indeed not till nearly the close of last year—they were apprised that the presence of the ore indicates a greatly short of the estimates set forth some months ago. Throughout the year this deficiency from the estimates was increased by the fact that the directors failed to have the ore assayed and tested, and they say it is not possible to make the estimates with accuracy when the index was so persistently deteriorating. It must be admitted to be difficult correctly to estimate the value of the ore broken from a vein which are in circumstances. In fact, after dressing and separating the ore, an approximate valuation only can be obtained, and no valuation can be entirely relied upon as correct until the ore is weighed and the contents in copper have been obtained by assays carefully made at the smelting-house. Unfortunately this was not done until the end of the year, and the directors were thus enabled to ascertain that it was of a very inferior nature—very difficult to smelt, requiring, in the process of smelting, much more coal and labour, and thus involving a great increase of expenditure. These explanations will enable the shareholders to form an opinion of the accuracy of his in the past year. The reports submitted to Captain Thomson, in the present year, represented the mine as having assumed a more favourable appearance. The monthly mine accounts given a production of about twenty tons of copper per month, but the ore declined monthly at the smelting-house—this was because, for six months, more than six to twelve tons of ore were smelted with the same quantity of fuel, and the directors were thus enabled to judge the accuracy of the mining captain's estimates; but the directors finally—knowing that their confidence in mine estimates is very much diminished. Placed in these circumstances, the directors have left it their duty to reduce, by every accessible means, the expenditure at Abov. They have most positively interdicted all outlay of capital in new works or buildings; they have ordered that such parts of the minority who leave a profit shall be worked, except when some poor further hole is required to restore them; they have returned to the smelting-house the same quantity of fuel as was formerly used, as reduced the expenditure within the sum of fifteen tons of copper per month, or less than 10 tons in the year, and they have engaged a gentleman, Mr. F. Engstrom, to proceed to Norway, as the chief superintendent, in the place of Mr. Smith, who was so unfortunately drowned last year. To this gentleman they have unreservedly explained all their disappointments, and their plans for the future direction of the establishment. The directors having had much intercourse with Mr. Engstrom before he left England, believe they can place entire confidence in his integrity and honesty in carrying out the plan of the mine. The first part of the year has been a very quiet one. Having, from Abov sent about eight tons of copper, has called the directors from the dust they had incurred to the banks of the sea-estuary, and has left a balance towards succeeding engagements.

On this occasion of the trial (as has been previously reported) it is necessary to purchase and contract for the supply of stores and materials for the maintenance of the officers and the supply of the same for twelve months in advance. These arrangements admit of no hesitation or delay, if the works at Altam are to go on. The directors have taken into their very serious consideration the responsibility they, as the first instance, are involved in, and ultimately every holder of shares in the association, by maintaining the same. It appeared that a total of £7,500, the proceeds of the mines have covered the expenditure, and that the past year is the only one stating a heavy loss to the association, and that the superintendent's letters and reports had not evoked any expectations of improved results in the present year. These facts and considerations have induced the directors to decide that, in their opinion, it is right to continue the works, for the present, at a reduced expenditure. But a few days before this report was begun to be prepared, John Stone, a member of the directors, suddenly died; he had been for some time in declining health, and was prevented from attending at the office and giving his attention to the details of his office, and agreed with them. In the meantime arrived at Mr. F. Miller, Esq. who, in addition to his office of managing director, holds the office of the mine, and the responsibility of management of the mine with him. It was reported by Mr. Miller, on that only three directors now remain. Mr. Woodall, who was for many years at the head of the establishment at Altam, and, since his return to England, aided the directors from time to time with very useful service. In his, at the request of the directors, mentioned to be prepared to fill up one of the vacancies in the directors, and Mr. Miller, should his health permit, has promised to give occasional aid at the office. In these circumstances, the directors do not propose to the shareholders to fill up the appointment of the 10th director, at the same time they request it may be understood they will be desirous to divide the responsibilities and the employment with a fifth colleague, and the present meeting determined to make the appointment. The directors are still to inform the shareholders, that the coal mine is in a very good position on the shares, there is very little risk of default, which, by the way, is the only case of default, there is very little risk of default, or may, by the way, be the only case of default, be paid for the benefit of the association, unless the directors act, on the application of the parties holding the shares, or his representatives, £100 to £150 to disburse with the directors, on payment of the instalments in arrears, and a per cent. interest thereon to the time of payment. The direct act, in addition, has to inform the shareholders that they shall continue to see their interest maintained to promote the welfare of the association, and hope for a more successful result to the mining operations this season.

Mr. FORT inquired with respect to the same. If the sum of \$22,000 was the total amount of the loss upon the mines for the year 1914?—The CHAIRMAN, in reply, stated that that amount was the loss sustained by the association, after deducting the profit (amounting to something more than that) made by the mercantile transactions.—Mr. FORT then remarked, that in that case the actual loss upon the workings amounted to nearly \$200,000, he had been influenced by a rumor that the directors had been very wise in writing on the other side of the water; he thought that by doing it in England it could be done at a much cheaper rate.—The CHAIRMAN stated that the loss had come from the purchases of the ore—they had not got freight for smelting in London.—Mr. GIBSON stated that they had a different mine, and could not avoid the use of iron without those at other; of that they were much troubled with the excessive liability of their ore, but now an alteration had taken place, and they found them quite satisfactory; it they had not so-called them in Norway their losses would have been much greater.—Mr. FORT remarked, that the company would have been much better off if they had never raised the ore.—The CHAIRMAN agreed in that remark, so far as it related to last year.—Mr. GIBSON stated that the freight from Norway to England would be from 12. 1/2 to 25. 1/2 sh. a ton, and that their ore was not rich enough to pay such cost.—The CHAIRMAN, in reply to a question, stated that the French ore had been tried as well as their own, and it was again stated that the 20,000 profit had been made.—The honorable gentleman who put the question remarked that in many such a question should be carried on at their mines.

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were a larger assemblage of proprietors, and they were to determine upon the immediate dissolution of the company, as one would be better pleased than himself; they had received \$7,000. from the proprietors, and he would only go on for the twelve months, not that there was any chance of profit, but merely to prevent responsibility.

In reply to Mr. Pitt, the CHAIRMAN said there would be but very little chance of another call being made.—Mr. GIBSON stated he would not put another call; there was now due for each 3000*l.* or 4000*l.*, supplies for the year at the works 13,000*l.* or 14,000*l.*, besides the wages; their report stated that a cargo of sugar would soon arrive, which would clear off present liabilities; they would then receive nothing until the winter.

In reply to some proprietors, Mr. NEILL stated that in 1833 and 1834 the produce of the mines only averaged 40,000*l.* per annum, since which time it had gradually increased, it being, in 1836, 14,900*l.*; in 1837, 17,800*l.*; in 1838, 18,000*l.*; in 1839, 22,000*l.*; in 1840, 23,000*l.*; and in 1841, 13,700*l.* The falling off in 1841 was occasioned by the decrease in the produce of the mines, the average being previously about 8 per cent., while now it was only 5 per cent.; the mines had yielded the company in all about 130,000*l.*, the whole of which had been expended except the 10,000*l.* which had been paid in dividends; the ore from Ripon Mine, although it was only twenty-three per cent. yields from 15 to 35 per cent.—that price could not be said to have been fully explored; it cost the company about 1*l.* 19*s.* per ton for smelting at Aiken, while here they could have it done for about 1*l.* 2*s.*; but then the freight must be taken into consideration, as also the fact that the southern England buy the foreign ores according to the price of foreign copper, which only fetches 8*l.*, while theirs fetch 9*l.* 10*s.*—making a difference of nearly 8*s.* per ton; this additional price was given from the superior quality of this copper, which was used in France and Germany instead of the Russian copper, at a price of 10*l.* per ton, and he had no doubt that shortly they would get the same price; another thing to be considered in the introduction of their ores into this country was the 5 per cent. duty upon the value of the metal in their ores, and, on the other hand, there was the 4*s.* per ton on the export of coal.

In reply to a proprietor, as to whether any purchaser could be found in Norway for the property, the CHAIRMAN stated that it was more than probable, but they had better say but little about it.—The report was then unanimously adopted.

The half-yearly general meeting of the shareholders in the above association was held at the London Tavern, Bishopsgate-street, on Thursday, the 14th inst.

The advertisement revealing the present meeting having been read, and the minutes of the last read and confirmed, the CHAIRMAN read the directors' report, which congratulated the proprietors on the improved prospects of the company. It stated that the most prominent feature of the proceedings of the past half year was the repayment of the deposit, which had been agreed to be repaid by the Brazilian Government, by an equal amount of 6 per cent. stock at 74½ per cent., by three instalments; and, by advices received this day from the *Brasileira*, the directors had the satisfaction of hearing that the whole had been paid—248,763 milreis, or 99,000*l.* stock—and the directors recommended that, as the dividends upon that would amount to 2880*l.* per annum, it should be allowed to remain in Brazil, and applied to the purpose of the mine, and a power of attorney had been sent out to the agents to empower them to invest the capital, and receive the dividends half-yearly. Mr. Daryl, who had resigned his post as chief superintendent, during the period of his engagement with the company had rendered 2 or 3 very important services; one of which was the reduction of the day from 25 to 10 per cent., and the other the obtaining the return of the deposit. He had also, as far as possible, with regard to the interests of the company, restrained the salaries. The total quantity of gold raised during the six months was 920 lbs. 2 oz. 9 dwts. 12 grs., which, after deducting expenses, yielded 28,572*l.* 15s. 6d.; 119 oz. of silver had also been sold, which, together with some produce, yielded 79*l.* 6s. 8d., which, with other items, consisting of interest on stock, cash received on calls, &c., made the total amount received for the half-year 34,742*l.* Out of the balance of net profit, amounting to 2880*l.* 15s. 11d., the directors proposed that a dividend of 10s. per share should be paid on Monday, the 23d May, 1842, at the office. The directors also recommended that a portion of the funds placed at their disposal by the repayment of the deposit should be applied to the repayment of 1*l.* per share to the shareholders, and, until the money should be sent to England, that dividend should be provided for by the sale of 10,000*l.* of funded property. It was the duty of the directors to inform the meeting that there were two vacancies in the direction, occasioned by the death of Mr. Slater, who had for fifteen years given his services to the company, and the retirement of Mr. Michael Williams, of Tours, which vacancies it was proposed to fill up on the 3d June, at a meeting then to be held. Mr. Crockett had intervened upon his office of chief superintendent, and found that there were 7000, 91 English miners, 116 native miners, 535 male negroes, 133 female negroes, 69 negro boys, and 64 negro girls—or a total of 714 persons employed by the company in the *Brasileira*. The abolition of corporal punishment had been attended with the very best effects.

The half-yearly general meeting of the proprietors of shares in the above company was held at the office of the company, Great Winchester-street, at Reading, the 8th instant.

The advertisement calling the meeting having been read, and the minutes the last conference, the SECRETARY (Mr. J. M. Mandy) read the directors'

At the report presented to the proprietors at the last annual meeting, the directors reported, by the result of the operations at their mine, in the State of Texas, during the previous year (the same exhibited in the annual balance-sheet) profit and loss for that year, then submitted to the meeting, to anticipate, so far as they then explained, a more favorable result to the operations of the next year (all) than to those of the year which preceded it. In the report the directors were so explicit, that their anticipations have, unfortunately, not been realized, will be perceived by the balance-sheet of profit and loss for the year (all), which you now submit to the meeting in all its essential features, which their results are indeed antithetical to those of the previous year, winding up with a loss of \$ 2,000, at the exchange of ex. per dollar, equal to 50 cts. sterling. This serious adverse result must be ascribed, in a great measure, to the fact, almost entirely, to the fall in the price of the iron ores in the mining operations only, which

Together, therefore, a difference of 12,728 0 8
is the starting point. This important difference must be accounted for by the balance
of the various costs of the Portland Mine, which, in 1941, left a profit of 200
mine itself having off a profit, owing to its having been in "business" during
all of the year, of 200; together, therefore, 12,928 0 8, whilst, on the other
side, in 1941, the mine lost a total of 200, and the balance 12,728 0 8, making
difference on the result of the two years equivalent for this mine alone of 200.
This is more than sufficient to account for the difference of 12 the profit and the
loss of the two years—viz., that in 1941 a profit of 200, of 12, and that of the
loss of 200.

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the establishment of a company as the only means of any consequence now under contract with the company—the San Francisco class of miners having (as was intimated in the directors' report last year) been finally abandoned by the company.

In the event of the abandonment of the Position and Salsola Mines, the purchase of coal must be followed up with increased activity, in order to keep up the new barrel amalgamation mill at Yavapai, which was set to work on the 15th of August last, with perfect success, fully employed, if possible. This mill, with eight barrels, is capable of producing, in fact, ever since it was set to work has reduced—2000 quintals of ore monthly, in every respect as to its working power surpassing even the expectations of the directors. Nothing, therefore, remains but to keep this mill at all events, if possible, even that also of Santa Anna, with five barrels, capable of reducing 1000 quintals of ore monthly—well employed, to insure a remunerative profit to the proprietors. With a view to the prosecution of this desirable object, and to anticipate the preparation of the concentration tables at Salsola, before alluded to—of all events, to give the new mill, which cost \$12,500 (paid), a fair trial—the directors now report that, in addition to the 2000, which, in their report of last year, they intimated their intention to transmit to Salsola, on the faith of the indemnity fund, to which 3000 more has since been added, in order to complete the new mill, they have lately—say, on the 15th of February last—sent out a further credit for 1000, which, if availed of, will also have to be advanced, out of the trustees' indemnity fund, until such time as the directors may deem it expedient to make a further call upon the proprietors.

The directors now submit the balance-sheet of the company's accounts, from its commencement to the 31st December last, as required by the Deed of Constitution, examined and approved by the auditors; and have now to report that S. Prior, Esq., and J. R. Maude, Esq., two of the directors, and Thomas Stirling Benson, Esq., one of the auditors of the company, are now in turn, by settled rotation, to go out of office, but, being eligible, now offer themselves for re-election to the office of director and auditor respectively.

Balance sheet from March, 1835, to 31st December, 1841.

RECEIPTS.	
Amount received for deposit and calls to 31st Dec., 1840	£287,300 0 0
Cash received in 1841 for call of 10s. per share on 4000 shares, made on the 4th of January, 1841	2,075 10 0
Balance of profit and loss account on 31st Dec., 1841	£200,000 10 0
	1,807 11 0

Commissioners in Mexico, for amounts transmitted from commencement of operations to December, 1841 £200,000 10 0 |

General expenses 27,746 11 11 |

Estimates and furniture in office 100 0 0 |

Trustees' indemnity fund	5,000 0 0
Cash and petty cash in hand	117 13 4
Stamps for transfer, &c.	14 0 0
	£201,782 1 8

The CHAIRMAN then explained that all the dependance of the company was upon the barrel amalgamation; it was covering all expenses, and would yield a profit of £30,000 per annum. The poorer ores would do for it—they were obliged to concentrate them. To keep the mill in work they had been compelled to purchase £22,000 worth of ore from the business; the thing was, with these men, if you gave them 2s., 3s., 4s., or 5s. per day, they would still only work in proportion to the amount they received, and, as the company's own mines had fallen off, their only hope now was from the purchase of ore from the active miners to supply for the mill. It was a painful position for the directors to be placed in; at the last meeting they had to report a profit of £643, with good prospects, while now they had to explain to the proprietors the reason of a loss of £17,000 for the year 1841; the reason was simply this—in 1840 the ores were rich, in 1841 they were poor. The attendance of the directors had been very close, and the interests of the proprietors had been carefully regarded—indeed, the directors' own interest in the company was too great for them to neglect it, they holding, although reduced in number, by the gradual falling off of their brother directors since the company had been in difficulties, from twenty-four to the seven or eight present, nearly one-third of the capital invested. It was determined that if the barrel amalgamation process could not support itself that the company should be dissolved as speedily as possible. If the accounts from Salsola were unfavourable a call of 10s. per share would be made, but, if favourable, there would be a slight chance of recovering the losses the shareholders had sustained. With respect to their present position, the stores were worth £41,000, and the plant £77,000, so that, in the event of the dissolution of the company, the liabilities would be covered, but, at the rate the mill was now going on, it would give a dividend of 10s. per share, although he was not sanguine enough to expect that result, but trusted that it might turn out as well.—A few questions being put by Mr. GODDARD, which were satisfactorily replied to by the CHAIRMAN, some conversation ensued as to the future prospects of the company, after which the report and statement of accounts was unanimously adopted.—It was then moved, seconded, and carried unanimously—"That Messrs. L. Prior and J. R. Maude be re-elected directors of the company," which was carried unanimously, and Mr. Benson was re-elected auditor.—The thanks of the meeting were then unanimously voted to the chairman and directors, and Mr. Maude (the secretary), for their zeal and attendance to the interests of the company, and the meeting adjourned.

PRESTON AND WYRE RAILWAY, HARBOUR, AND DOCK.

The half-yearly general meeting of the shareholders of this company was held at the offices, King William-street, on Saturday, the 30th ult.

Sir P. HERBERT FLEETWOOD in the chair.

The report stated that the directors being unable to issue any new shares, either at 50s. or 25s., upon the security of the company's funds alone, Sir P. H. Fleetwood had agreed to place his seat of Fleetwood in the directors' hands, to enable them to issue a sufficient number of new 25s. shares, the company guaranteeing a priority of 5 per cent. interest, so as to arrange the floating loans and debts of the company. It further stated that the directors had appointed F. Cortazzi, Esq., managing director, at a salary of 300l. per annum.—The CHAIRMAN, in a brief speech, alluded to the general depression of trade in the manufacturing districts of the North, which he stated had not only affected their own undertaking, but also other railroads in Lancashire. The expenditure of the last half-year had been largely increased by the charge for maintenance of way, but the line had been recently ballasted with sea gravel, and the whole was being brought into excellent order. Though the receipts for the half-year had diminished, there was a considerable increase in the tonnage of vessels. There was every expectation of the West Cumberland line being revived, and of the rapid completion of the Bolton and Preston Railway, which would bring large accessions of traffic to Fleetwood. It was then resolved that the report and accounts be received and adopted, and that the new shares of 25s. each be issued in conformity with the recommendation of the directors. Seven directors were then elected for the year ensuing, and after a brief allusion to the advantages which the port of Fleetwood enjoyed over that of Liverpool, as far as a saving in the shipment of goods was concerned, which was estimated at about 6 or 7 per cent., a flattering vote of thanks was proposed and passed to the chairman and directors, and the meeting, which was fairly attended, broke up.

POLBREEN MINING COMPANY.

A special general meeting of the shareholders of this company was held at the offices, 41, Finsbury-square, on Monday, the 2d inst.—E. CLIFFORD, Esq., in the chair.—The minutes of the last meeting were read and confirmed. The advertisement convening the present meeting having been read, it was moved, seconded, and carried unanimously—"That the resolution passed at the meeting held on the 5th ult., recommending the dissolution of the company, be confirmed."—The thanks of the meeting were then voted to the chairman, for his conduct in the chair, and the meeting adjourned.

ANGLO-MEXICAN MINT COMPANY.

The annual general meeting of the proprietors of this company was held at the offices, 9, New Broad-street, on Tuesday, the 3d inst., but, of the nature of the business discussed, we, as well as the distant shareholder, must remain ignorant, as our register, on presenting himself, for the purpose of taking notes of the proceedings, was refused admittance. We cannot but regret that the directors, as managers of a public undertaking, should deem their transactions unworthy of publicity.

IMPORTANT INVENTION.—A trial was made at Liverpool, last week, of a new method of propelling steam-boats, invented by Mr. E. Finch, for which purpose a small steamer had been constructed at the engineering establishment of Mr. Rigby, at Harsden; the experimental trip was performed in so satisfactory a manner as to convince all parties that this new propeller is of great importance, and, when fully developed, will be as generally applicable to sailing-vessels as to steam-packets. The invention appears a simple contrivance; the paddle-boats are still preserved, but, instead of wheels, two plates are applied, the broadest parts of which are at their extreme ends, fixed obliquely at an angle of 88 degrees, one on each side of the vessel, at the ends of the paddle-shaft; these plates, or propellers, are made of wrought-iron, and appear very strong and compact, and about eleven feet long and 3 ft. 6 in. wide in the broadest parts; they are entirely out of the water twice in the revolution of the paddle-shaft, when the engine is on her centre, and have the deepest haul of the water when the engine is at half stroke, or at its greatest power. They thus act like sails, or sails: no back water is created, and the disagreeable heaving of the paddle-boats on the water, and consequent vibration of the vessel, is avoided.

ARTIFICIAL WOOD AT GREENGLASS.—The sand and clay, which have so long rendered the water of the Ardenian well thick and muddy, appear to be completely exhausted, and for some weeks the flow has been suddenly as clear as well-defined glass water.

STATISTICAL NOTICES OF THE MINERAL DISTRICT OF PENNSYLVANIA, U.S.

We extract the following from the *Harrisburgh Reporter*, treating on the mineral district of Pennsylvania, the population of which is stated at 7,734,033 five people, while in 1790 it was only 434,373.—"We have more than 30,000,000 acres of land, and under better cultivation than any in this union, and constantly improving. It is worth at least \$700,000,000. We have more than 300,000 houses, worth \$300,000,000, and barns, workshops, stores, furnaces, forges, factories, and mills, worth \$200,000,000 more. Now has our public debt been contracted for nothing. Our railroads and canals extend, not only to our coast and iron mines, but are designed to connect the waters of the great lakes, and the great Ohio and Mississippi Valleys, with the waters of the Delaware and the Chesapeake; they intersect the State in every direction, from west to east and from north to south. Including State and company works, we have more than 1000 miles of canals and 700 miles of railroads, completed and in operation, and costing more than 100,000,000 dollars. Some portions of these works are not yet profitable, in consequence of the unfinished links, and yet the tolls will this year, on the State works of about 700 miles, exceed a million of dollars.

The value of the anthracite coal mines upon the Schuylkill, the Lehigh, the Swatara, the Wisconsin, the Shamokin, the Susquehanna, and the Lackawanna, which are but just beginning to pour down their mineral wealth to the markets upon the ocean, is incalculable. In 1839 the trade commenced, and 300 tons were sent to market from the Lehigh. In 1835 the trade commenced upon the Schuylkill. The Schuylkill Canal was then finished. There are now about fifty-five miles of railroads, branching from the canal to the several mines, and forty-five miles of railroads underground. About 1800 cars are employed in conveying the coal from the mines to the canal, and between 800 and 900 boats are used in conveying the coal to Philadelphia. The arrivals of vessels annually in the Schuylkill for the conveyance of Schuylkill coal to other States, will number about 3100; 120 sloops, schooners, and barges, arrived in two days last week. The Schuylkill mines will this year produce more than 800,000 tons, and the other anthracite mining districts about the same quantity—making 1,000,000 tons, of which about 500,000 will be exported to other States.

The coal trade is but yet in its infancy, and increasing rapidly. The use of anthracite coal in steam-boats is taking the place of wood in the eastern waters, and will be used in the steamers of the ocean as the safest and cheapest fuel. It is also coming into use in driving machinery and making iron. The mines upon the Swatara are capable of producing as much as the Schuylkill, and so are those of the Lehigh, the Wisconsin, the Shamokin, and the Susquehanna; and the Schuylkill is capable of producing four times the amount that is now mined. Improvements will soon be completed in all these mining districts. What, then, will be the annual worth of the anthracite coal of Pennsylvania that will be carried upon her public works? But we have not only anthracite, but, according to our State geologist, more bituminous coal than all Europe. Our State coasts intersect this bituminous coal-field in all directions. All Europe contains about 2000 square miles of bituminous coal land—Pennsylvania has 10,000 square miles, or 6,400,000 acres. It is estimated by our State geologist that the great western bituminous coal-field of Pennsylvania contains three hundred thousand millions of tons! Ten thousand times more than England, Scotland, Wales, and Ireland! This vast mineral wealth, without the public improvements, would have been dead capital for ever. According to the returns of the county commissioners to the Secretary of the Commonwealth, there was mined in 1838, in Pennsylvania, west of the Alleghany Mountains, more than 2,000,000 tons of bituminous coal. Not one ton of this reached the Atlantic market. About nine-tenths of it was consumed in domestic purposes at home, in furnaces and rolling-mills, and in driving machinery: one-tenth, or 200,000 tons, were shipped down the Ohio and the Mississippi. What this trade will be when the great valley is filled with population, wealth, and refinement—when Western Pennsylvania becomes the manufacturing dependence of the Western States, can hardly be conjectured. Nor is this great bituminous coal-field entirely separated from the Atlantic. We have abundance of bituminous coal, the nearest in the United States, of any quantity, to Tide Water. The Virginia and Maryland mines, on the Potomac, are from 180 to 200 miles from ship navigation at George Town. The completion last year of the Tide Water Canal from Havre de Grace, in Maryland, to the Pennsylvania Canal, at Columbia, has this year, for the first time, opened a navigation for the bituminous coal of the Juniata, and the West Branch of the Susquehanna to the Chesapeake. It is estimated that the trade will this year reach 100,000 tons; the amount is unlimited which can be sent from these places on one canal to market. A railroad has been constructed, forty miles long, from the northern end of our coal basin to Corning, on the Chemung Canal of New York, leading into Seneca Lake; there are now six locomotives and between 300 and 400 cars on this road, conveying coal from our Bituminous mines into the state of New York.

The quantity of iron produced in Pennsylvania is equal to about one-third of the product of the whole Union; her iron is superior in quality to any other. According to the remarks of the Hon. James Irwin, in a late speech in Congress, we had, in 1839, 310 charcoal furnaces, producing 95,350 tons of pig-iron, and 70,000 tons of this was converted into bar-iron for forges and rolling-mills; more than 15,000 workmen—altogether making 95,000 people with their families, consumed annually \$7,000,000 worth of agricultural produce and merchandise. The number has increased greatly since by the establishment of anthracite furnaces. The amount of bar and pig iron is now worth about \$7,000,000. According to the returns to the Secretary of the Commonwealth, there was manufactured, in 1838, 50,558 tons of castings in thirty-six counties, valued at \$3,800,599; and estimated value of cast-iron in sixteen counties, at least \$1,194,000, and the amount of bar, pig, and cast iron in Pennsylvania is worth \$14,000,000. A considerable amount of Jersey iron is made into castings and rolled into bars in Philadelphia, and a quantity of the pigs of the Western Virginia, Ohio, and Kentucky, are made into castings and rolled into bars at Pittsburgh.

To conclude, who does not feel proud of this picture of Pennsylvania? She has all the resources of a great nation within herself, for happiness in peace, for power in war. She is capable of maintaining a 30,000,000 of people within her borders, of feeding and clothing them herself, and making the surrounding States her tributaries. Her water-power upon the Susquehanna and her hundred branches, upon the Delaware and Schuylkill and their tributaries, and upon the streams that make the Alleghany and Monongahela, is capable of performing the labour of 400,000,000 men. What her steam-power can do in her anthracite coal-fields, and upon her 10,000 square miles of bituminous coal lands, it is impossible to calculate.

INSTITUTION OF CIVIL ENGINEERS.

MAY 3.—The first paper read was "An Account of the Tunnel between Bath and Bristol, on the Great Western Railway," by Mr. NIXON.—These works are more than usually interesting from the frequency of the tunnels, their large dimensions, and the rapidity with which they were executed; the details of the execution were given minutely, and the paper was illustrated by a very artistic drawing. After an animated discussion upon the price paid for the various works, the deviations from the original line, and the comparative advantages of the different modes of working, Dr. Buckland described the geological formation of the locality, and pointed out the precautions which were necessary in driving tunnels through various kinds of rocks; in the unstratified rocks, excavations could be made with perfect safety, but in those whose strata or lines of cleavage approached the vertical, greater attention was required; whilst in the chalk, sand, lime, and similar formations, the danger was more often decided, and it was contended that in tunnels through such strata, gales they were used with caution throughout, even the vibration arising from the traversing of the locomotives and carriages, might cause considerable danger by the sudden fall of portions of the roof. The landings caused by the accumulations of water or by unequal pressure were alluded to, and the more intimate connection between engineers and geologists was insisted upon as most advantageous for both parties.

The next paper was "An Account of the Railroad constructed between Lyons and Versailles," by Lieut. OGDEN, an engineer officer in the service of the East India Company, who, in a tour through Belgium, carried his note book with remarks and sketches on professional subjects, whence he had drawn the materials for the paper. It described the general course of the railway descending by the long inclined plane from the height above Lyons to the valley of the Meuse, its progress along the romantic banks of the Vesdre, through forests, and over almost insuperable bridges and viaducts in Chaudfontaine, and thence onward through the busy town of Versailles to the station of Germany towards Aix-la-Chapelle. The mode of excavating the tunnels, and the materials used in the other works on the line were accurately described; the general facilities and curves of the road, the rails, sleepers, and methods of fastening them to the sleepers, and the prices of labour and materials, were all given in detail, and the whole was illustrated by sketched diagrams from the author's sketches.

MANCHESTER GEOLOGICAL SOCIETY.—At the monthly meeting of the members, held at their rooms, on the 29th ult.—Edwin HUGHESON, Esq., F.R.S., in the chair—after several presents, of minerals, &c., from contemporary scientific institutions had been announced, Mr. Winney read a communication (by R. Harkness, Esq., of Omaha's), "On the Influence of Temperature on the Waters of the Ocean," in which we shall give insertion in an early Number. The thanks of the society were voted to the donors, and also to the author of the paper, which appears to be of an important character, and likely, from the hypothesis therein started with respect to the alternation in the temperature of the ocean, to afford for many of those geological phenomena of which no satisfactory explanation has hitherto been given.

IMPROVED METHOD OF OBTAINING METALS FROM ORES.

[Specification granted to Anthony Theophilus Berry, refiner of metals, Birmingham, for an improved process or processes for obtaining zinc and lead from their respective ores, and for the calcination of other metallic bodies.]

This invention consists in applying the heat arising from the converting of pit-coal into coke, to the purposes of calcining, roasting, and smelting the ores of zinc and lead. To accomplish this, the coke-oven is connected at the back by a flue, with a subliming-furnace; from the back of which a flue leads to a reverberatory-furnace, and from the back of this furnace another flue proceeds to a chimney. The subliming pots are twenty-four in number, and their lower ends are inserted into condensing pipes, which dip into vessels containing water, to receive in drops the condensed vapours of the zinc. The ores of zinc (i. e. the carbonate and sulphate of zinc) are, in the first instance, converted into an impure oxide of zinc, in the following manner:—The carbonate of zinc, after being reduced to a coarse powder and washed, is exposed in a reverberatory-furnace, for five or six hours, to a strong red heat (being occasionally stirred with an iron rake), which decomposes the carbonate, and produces an impure oxide of zinc. The sulphur is coarsely pulverised, and washed, and calcined for twenty-four hours, in a reverberatory-furnace, being stirred every half-hour. During the first six hours it is exposed to a very low heat, which, for the remainder of the time, is increased to a strong red heat; and at the end of the twenty-four hours the sulphur will be decomposed, and an impure oxide of zinc produced. The following is the mode of converting the impure oxide of zinc into a metallic state:—A fire is first made in the coke-oven, and small quantities of coal are added, until the subliming pots are made red hot by the flame, heated gases, &c., that pass from the coke-oven into the subliming furnace, and from thence proceed through the reverberatory-furnace into the chimney. The oven is then cleared out, and charged with the coal to be made into coke; and at the same time the subliming pots are charged with the oxide of zinc, mixed with pulverised charcoal, coke, or other carbonaceous substances, in the proportions of one part, by weight, of charcoal, to three parts of the oxide; the opening at the bottom of each subliming pot being stopped up by a piece of coke or charcoal, to prevent the charge from passing through. In about twenty-four or thirty hours the coal will be converted into coke, the ore in the subliming-pots reduced, and the zinc sublimed. The sublimed zinc is then collected, and the subliming-pots and coke-oven are cleared out and recharged; after which the above process is repeated. The flame, heated gases, &c., from the coke-oven, may pass through a calcining-furnace, in the same way as they pass through the subliming-furnace. An ordinary smelting-furnace is employed for smelting lead ore, it being connected, by a flue, with a coke-oven, in the same manner as the subliming-furnace, and for the same purpose.—The patentee claims the application of the heat, arising from the carbonisation of pit-coal, to the calcining, subliming, or smelting the ores of lead or zinc, let the apparatus or process, combined therewith, be what it may; and likewise the combination of furnaces for the calcination of the ores of other metallic bodies, besides those of zinc and lead.

ELECTRO-MAGNETISM AS A MOVING POWER.

The Consul-General of the Netherlands, in a communication dated the 18th ult., thus announces the removal of the hitherto great obstacle to the practical application of electro-magnetism as an effective propelling power:—"A private gentleman, Mr. Elias, of Haarlem, has just published the description of a new machine invented by him, for the application of electro-magnetism as a substitute for steam. The object of the inventor has been chiefly to remedy the defects which, in 1839, rendered the otherwise ingenious invention of Mr. Jacob, of St. Petersburg, a total failure, in as far as practical utility is concerned. Those defects originated, it seems, in the erroneous supposition that the power of the magnetic bars exclusively resides in their extremities—whence the form hitherto given to all electro-magnetic machines—viz., that of a horse-shoe—which, while it occasions an unavoidable interruption of the magnetic stream at each new inversion of the poles, at the same time leaves the power resident in the remaining part of the bars wholly unemployed. The new invention of Mr. Elias, on the contrary, has the very great advantage of rendering effective the full power of the magnetic stream uninterrupted, and throughout the whole body of the apparatus. This consists of two concentric rings of soft iron, standing on the same plane, of which the external one is immovably, while that on the inside revolves round its own axis. By means of a piece of copper wire, wound about each of these rings, he has given them six magnetic poles, placed at equal distances from one another, the whole being so contrived that the one ring exerts its inducing power on the other throughout the whole circumference, and always at the same distance. A small, but very perfect, model of this important invention is now open to public inspection here; and the result of its operation is allowed, by those skilled in such matters, to be such as to ensure the most triumphant success."

WILLIAMS'S ARGAND FURNACE.

The smoke nuisance, at length, we are happy to say, bids fair to be, in some measure, shated—at least, where public spirit or individual enterprise may induce the introduction of a perfect and economical remedy. The great popularity and extended application recently obtained by Mr. C. W. Williams's ingenious process, must be highly gratifying to that gentleman, as well as to all interested in the abolition of an intolerable nuisance. As regards steam navigation, we noticed, in our last, its successful use by the directors of the Dublin Steam Company, in their new mail contract steamer, *Prinsep*; and we have now, with reference to manufacturers, to record its introduction into Scotland—a public inspection of one of the furnaces just erected at the extensive works of Mr. A. Harvey, Glasgow, having taken place a few days since, when, we understand, about thirty intelligent and scientific gentlemen inspected the smokeless furnace in action, which was erected by Messrs. Dicks and Co., of Manchester, under the superintendence of the engineer of the works, Mr. Wm. Butler, and "all parties (among whom were the town clerk and several other public authorities) expressed themselves highly gratified with the exhibition, ably and practically illustrating a system which, there can be little doubt, is based on correct scientific principles. Mr. Harvey's furnace affords an excellent example of the efficacy of this adaptation of chemical principles to the perfect combustion of coal on the large scale, eight-holes being placed to observe the lateral action of the furnace during the using and stopping of the patent air-distributing apparatus. As a common furnace, the chimney emitted a dense cloud of smoke, and the flame would be dark that the eight-holes were rendered useless; but, on admitting rather more than 1000 jets of air to the cracks coal gas, ignition immediately took place, the whole was illumined under the boiler, the flame was exceedingly light, and no smoke escaped by the chimney. This system of preventing smoke is likely to supersede the old mode of smoke burning, and it promises to be of much benefit to manufacturers, as well as the general community."

RECOMMENDATION OF THE BIRMINGHAM STEAM COMMISSIONERS.—At the monthly meeting of the Birmingham Street Commissioners, held on Monday last, a report was read from the Kinross-Engine Committee, which stated that several members had examined the Argand furnace of Mr. C. W. Williams, at work, and although it was not proper to recommend any particular plan, yet there could not help expressing their great satisfaction at the results that had come under their observation; Mr. H. Ingram, of Bradford-street, and Mr. Hewkins, of the Eagle Foundry, had also inspected plans for the prevention of smoke; the Albion Mill had presented an almost smokeless chimney for years, and in Leeds there were now little or no smoke from any of the steam-furnaces that abounded in that district. The committee concluded by recommending that the Commissioners should enforce the power they have to prevent the smoke nuisance, and that all parties, after proper notice, disobeying such orders, must incur the consequences; a circular was submitted, a copy of which they wished to be sent to all owners of steam-engines and others emitting smoke in any extent, drawing their attention to the various ways of consuming smoke, and recommending their adoption of one of the plans as the only means of being prosecuted.—The report of the committee was unanimously adopted.

ON THE FACTORY OF LAMPS AT ZION.—M. de AUBERT, Director of the salt works of Durrheim, has succeeded in preventing completely the evaporating pans of the works, thirty feet in length, by causing to flow on the outside bands of iron; and he observes that it is not necessary that the two ends be nearly polished at the point of contact. This fact, proved by a trial of more than two years, tends to support the theory of contact.—*Annuaire des Mines.*

ORIGINAL CORRESPONDENCE.

THE NEW TARIFF—THE MINING INTEREST.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—“A Committee for the Protection of the British Mining Interest” is a very high-sounding title, but I am very apprehensive that the views entertained by the “committee,” in reference to the alterations proposed to be made in the tariff, and the proceedings they have thought proper to adopt in opposition to the measures of the Government, are much more calculated to prejudice the “mining interest” than to protect it, especially if we may judge of those views from the letter of Mr. Johnson, in the *Mining Journal* of the 30th ult., and which, from the connection that has subsisted throughout the whole proceedings, between the writer of that letter and the committee, may be assumed to be the fact.

I copy the following extract from Mr. Johnson's letter, as being a part that requires some explanation, and which, I must confess, I cannot clearly comprehend:—

“The British mines, of the metals alluded to (copper, tin, lead, &c.), cannot be worked if there is not a protecting duty imposed on foreign produce equivalent to the local advantages given by Nature, and the enterprise of our capitalists and positionate production of the mining of Britain, which, of course, depend on the proportionate abundance and certainty of supply of foreign produce in our own country, and the manufacturing or other interests of the nation; but, the produce of our mining, if such protection is given, will always be sufficient to supply our home consumption, and thereby prevent the injury to our mining, manufacturing, and trading population, by our becoming dependent on foreign supply, and render England a mart for, and regulator of, prices to other countries.”

I would remark, first, that the object of Ministers is to bring all the copper ores of the world, or as far as this can be done, to this country to be smelted—so I have been given to understand—and they are anxious to avoid their being driven to other countries for that purpose, by an excess of duty being levied upon them in this country; and, therefore, it is, that they do not quite fall into the views of the British miners protectors, as to what that amount should be. But, in the next place, what are we to understand by “the protecting duty being equivalent to the local advantages given by Nature,” &c.?

Mr. Johnson, in a subsequent part of his letter, observed “that the advantage this country possesses over others is 8*l.* 8*s.* 9*d.* per ton on the “metal produced,” and “that as long as this protecting duty is allowed there will be no fear of competition by foreign rivals.” This is a very important admission, and must, I should presume, exercise a very great influence in scaring away some of the phantoms that have intruded themselves upon the imaginations of the “protectors,” for it must be borne in mind, that the Ministers have proposed a protection equivalent to an average of 5*l.* per ton, and if there be nothing to be alarmed at but the 3*l.* 8*s.* 9*d.* above the 5*l.*, we may as well make up our minds at once that the British miners will not be ruined, nor the British miners he sent all over the world to seek employment. If this sum of 8*l.* 8*s.* 9*d.* per ton of metal be the amount of duty that Mr. Johnson thinks would be “equivalent to the local advantages given by Nature,” &c., it would, of course, be a fixed duty of that amount. How, then, can it be made dependent upon the proportionate production of the English and foreign mines? which would involve the question of a variable duty. This puzzles me very much, and I should like to see it explained. Mr. Johnson adds, that “the produce of our mines, if such a protection is given, will always be sufficient to supply our home consumption.” This observation would seem to imply that his intention, after all, was to secure the home market, by a prohibitory duty, to the home mines; and, even if he could do this, what would become of the 8000 tons of copper now annually exported out of the 12,000 tons produced? If this be not his intention, how would the foreign ores, which would be brought to this country to be smelted at the duty of 8*l.* 8*s.* 9*d.* per ton of metal, be prevented from competing with the produce of our mines in the home market?

I now come to Mr. Johnson's figures, which he has put together for the purpose of showing that ores of 20 produce, mixed with an equal portion of ores of 7½ produce, will give an average produce of 13½, and that, by this mixture, the copper would be introduced into this country at a less amount of duty than if they had not been so mixed. All this is correct, as far as the figures go, to an explanation of the subject; but the principal facts are kept out of sight, and, if introduced, they would have upset all Mr. Johnson's results. With your permission, we will throw a little light upon this subject, and the question I would propose is—Can ores of 7½ produce be so brought to this country, except at a considerable loss; and, if they cannot be brought separately, which I will now prove be the case, can they, by being mixed with ores of a higher produce, without incurring an equal loss? The duty proposed to be charged was 2*l.* 10*s.* per ton on all copper produced from ores of 14 per cent. and under, and 5*l.* per ton on copper from ores producing from 14 to 20 per cent., and Mr. Johnson's mixture is intended to bring the whole below 4, so that it be brought in at the lowest duty. Let us see what will be the effect of this mixture.

In the *Mining Journal* of the 2d of April you gave a statement of the cost and charges of bringing a ton of ore to the English market, which amounted to 8*l.* 10*s.* per ton. Now, those charges are just as high upon poor ores as they are upon rich ores. Ores of 7½ produce will sell at 1*s.* 6*d.* at the present standard, at about 6*l.* per ton; I mean ores of British produce, which is giving every advantage to the calculation in favour of the foreign mines. Thus, there would be a loss of 2*l.* 10*s.* per ton incurred in bringing ores of 7½ produce to market. Now, the proportions of ores of each quality that could be mixed to the greatest advantage to the seller would be 3½ tons at 20 produce, 7½ tons at 7½ produce, 30—100; and in this mixture there would be incurred a loss of 2*l.* 10*s.* per ton on four tons of ores of 7½ produce, amounting to 10*l.*, and a saving of 10*s.* per ton duty on 3½ tons of 20 produce, amounting to 35*s.*, or a positive loss upon the ton of copper thus produced of 8*l.* 5*s.*, to which must be added the duty on the four tons of poor ores, at the rate of 2*l.* 10*s.* per ton on the copper contained in them, and which on this quantity amounts, in round numbers, about 14*s.*, making the whole loss to be 8*l.* 19*s.* upon the ton of copper. Now, do you think that any benefit can arise to the mining interests by such statements being addressed by Mr. Johnson to Lord Ripon? or does Mr. Johnson really believe that his lordship and the rest of her Majesty's Ministers are so thoroughly ignorant of the facts, as to suffer themselves to be imposed upon by such calculations? Mr. Johnson has even gone so far as to assert that “rubbish” might be used with the rich ores for the purpose of lowering the produce; but I do not know a better term to apply to such a view of the question than that he has adopted in his mixture.

With regard to his observations upon tin, they appear to me to involve the same kind of contradictions. Mr. Johnson overlooks the fact of our being exporters to a very considerable portion of the tin produced by our mines annually, and that the quantity so exported, or a large portion of it, is sent by foreign tin in the foreign market. He says that England always has been, and will be, a regulator of prices to the world as long as our mines are at work; but has this really been the case? if so, how has it happened that for many years there have been such complaints against the price, and such losses incurred by the tin trade and the tin mining interests? We are informed, in one sentence, that unless the English mines are sufficiently protected to enable them to compete with the foreign mines, they will be destroyed, of course, by the low price of the produce; and, on the next, we are gravely assured, that the manufacturers will be raised by high prices. Surely those two effects cannot be produced by the same cause—that of want of protection to the English mines. If the foreigners can overwhelm the market, how has it happened that he has not done so hitherto? We have had a protection which has been prohibitory to the introduction of foreign tin, and yet prices have been kept low, and, with a few exceptions, the mines have been losing money, which Mr. Johnson states to be 30,000*l.* per annum. Foreign tin will not be sent to Europe unless some advantage can be gained by the parties interested in producing it. Hitherto it has not been in sufficient quantity to supply the European markets independent of our produce, and there can have been but one of two causes to restrain the limit to the quantity that has been brought—either more could not be produced, or the price has not been remunerating one; if the former, it would appear that there is something to be apprehended from lowering the duty; if the latter, lower prices will not encourage a larger supply, and without prices go lower than they have, the mines cannot be injured by the measure, except that if they, in some measure, effect the price of a certain description of tin—that is, the ore which need to be purchased for making refined tin may be purchased at a lower price than formerly, and thus some effect may be produced.

With respect to lead, Mr. Johnson is also somewhat out of his reckoning, in saying that Lord Ripon “may encourage that mine which

nearly 4000 persons were thrown out of employment by the protecting duty on foreign metal being removed for the introduction of Spanish lead; "I venture to say that his lordship remembers no such thing, and, for the best of all possible reasons—that such a thing never took place. Lord Ripon may, and no doubt does, recollect that some years ago the price of lead was greatly depressed, and continued to be so for several years; but his lordship will also recollect that it did not arise from the removal of the protecting duty on foreign metal, nor were nearly 4000 persons thrown out of employment by our mines ceasing to work. There was, I admit, a good deal of distress for a time in the lead mining districts, at least in many of them, but if Mr. Johnson would take the trouble to inquire into the true cause, he would find that it did not arise from the Government having lowered the duty on the importation of lead and lead ore, but that it was occasioned by a circumstance over which they could exercise no control; and it appears to me questionable whether we should have experienced so much depression in the price of lead if the foreign miner had been encouraged to bring his ore to this country to be smelted, by which there would have been less competition in the foreign market, upon the same principle as that advocated by Mr. Johnson, of converting this country into a mart for the supply of the world.

There was a letter in the *Mining Journal* of the 9th of April last, by "A North Country Reader," upon this subject, in which the author of it gave the quantities of metal and ore imported into this country at stated periods, on dividing the time as to make the fluctuations in quantity to agree with the alterations in the duty, which, although it contains, as far as it goes, the truth, does not give all the truth, and is, therefore, calculated to produce a wrong impression. A stranger to the facts would be led to the conclusion that the lowering of the duties had led to a large increase in importation, and that if the price of the produce of our mines had suffered from it. I give you the following table which will enable your readers to understand the question better.

The following are the particulars of foreign lead and lead ore imported into, and exported from, Great Britain, from the years 1820 to 1840, both inclusive, and also of British lead annually exported during the same period:—

Year.	Foreign lead imported, Tons.	For. lead exported, Tons.	For. lead new imp., Tons.	British lead exported, Tons.	Prices of lead in London.	Per ton.
1820	4	—	—	17,700	47 10 0	22 10 0
1821	—	—	—	17,400	21 0 0	23 0 0
1822	72	—	—	16,000	21 7 6	23 0 0
1823	—	—	—	17,200	22 0 0	—
1824	718	—	—	12,900	21 8 0	22 0 0
1825	610	—	—	10,400	22 0 0	30 0 0
1826	975	—	—	11,100	21 0 0	10 10 0
1827	2164	—	—	10,200	19 10 0	17 10 0
1828	2280	—	—	13,300	17 10 0	16 0 0
1829	1570	—	—	10,700	18 0 0	13 0 0
1830	602	—	—	10,000	18 0 0	13 10 0
1831	1240	—	—	9,600	18 0 0	13 10 0
1832	1110	—	—	9,200	18 0 0	13 10 0
1833	900	—	—	11,400	18 0 0	13 0 0
1834	900	—	—	10,400	18 0 0	17 10 0
1835	1,300	—	—	10,200	17 0 0	18 0 0
1836	1920	—	—	11,100	18 0 0	13 0 0
1837	1874	—	—	10,000	20 10 0	16 10 0
1838	2002	—	—	9,000	18 0 0	20 10 0
1839	2031	—	—	10,000	18 0 0	19 0 0
1840	1632	—	—	10,700	18 0 0	19 0 0
1841	1632	—	—	10,700	18 0 0	19 0 0

I do not pledge myself to the above prices being correct to a fraction, but they are approximate near enough for the purpose for which I have included them, and they show very clearly that averaging the price for several years together does not answer, when such averages are to be used for the purpose to which your correspondent has applied them. We can have trace the effects produced by certain causes, and can altogether, I think, disprove Mr. Johnson's reasoning, and your "North Country Reader's" inferences, which he evidently intended his letter to convey to the readers of it. In the first place, he inferred us of the quantities of pig lead that were imported, and left it to those who read his statement to infer that all this lead was for home consumption, and that the price was depressed thereby; but what are the facts? Why, that, in twenty-one years, there was imported 2282 tons of foreign lead, more than was exported, or about 110 tons per annum; this, I presume, could not have affected the price of lead. Then the duty on ore was lowered, and a considerable quantity was brought here to be smelted, until December, 1828, when the duty was raised to 25s. per ton of ore; and, since then, there has been only 318 tons brought in during twelve years. Of course, the prohibition to the introduction of ore produced an improvement in the price of lead. Let us see. In the year 1820 there was 1621 tons of ore imported; and in that year there was paid a duty of 42s. 6d. on lead and ore entered for home consumption, and the price of lead in London was from 16s. to 17s. per ton. As there was no ore imported afterwards, and very little lead entered for home consumption, of course the price of lead should have improved—but it did not; and how was this? The quantity of British lead exported began to decrease, and the price to go down, until the latter reached 11s. 5s. per ton in the London market—notwithstanding that foreign lead was not imported for use, nor foreign ore for being smelted; and all this arose from the plain simple fact, which it appears difficult to make some people to understand; it is, that foreign mines will be worked, and if we will not smelt the ore produced from them they will be smelted elsewhere; and if we will not purchase the metal the proprietors will find another market for it. This is precisely the situation in which the foreign copper miner is placed; he will bring his copper ore here to be smelted, if we will smelt them for him, and if we decline to do so, or attempt to charge him too high a price for doing so, he will take them to some other market, and not shut up his mines. The almost sudden and enormous large increase of produce from the Spanish mines was the cause of the difficulty to which the English miner was exposed for so many years, and nothing that may be done by any Minister can protect us against such evils when they arise.

There seems to me to be a degree of oversight running through the "protections" proceedings which one can hardly account for. It would almost appear that the proprietors of foreign mines are bent upon bringing the largest possible quantity of ore to market, without reference to profit or loss. Now, I cannot think they are such fools, or that, for the sake of saving fifty shillings duty upon a ton of copper, they would so inundate the market with poor ore as to throw down the price 10s. or 15s. per ton. What is it we are fighting for? Is it not that we may endeavour to prevent the price of copper from being so depressed in value as to injure our mines? Can the foreign miner depress the price to us without being a sufferer himself? If the price should be lowered to any extent, how is he to bring his poor ore to market at all? Is it not a matter of much greater importance to him to keep up the price for his rich ore, than to sacrifice them for the mere purpose of bringing a large quantity of poor ore to market, which will produce him little or no profit?

Of all I do not profess to know much, but Mr. Johnson's remarks upon this part of his letter are so curious that I cannot avoid noticing them. He tells us that "also can be produced in this country at 22s. per ton, but that, being dependent on the foreign supply, the price has increased from 11s. to 12s. per ton, to the injury of our manufacturers of brass and many other applications." That "the foreign ore of zinc can never be advantageously introduced into this country," but that "if the small protecting duty now paid on metal is continued, it would enable our home mines to keep a check on foreign monopolists." So. Then, then, zinc can be made in this country at 22s. per ton; the price in the market is 16s. 10s., and, notwithstanding there has been a duty upon foreign metal, there has been none produced in this country, in the form of this very large profit; but, now that it is proposed to lower the duty, so that the home manufacturers may be relieved from the injurious effects of the foreign monopolist, Mr. Johnson has found out, that, if the monopoly be transferred from the foreigner to the home miner, by a continuation of this duty, which heretofore has not been considered a sufficient protection, zinc can, and will, be produced from our own mines. Surely, Lord Ripon and her Majesty's Ministers must be dull of apprehension, if they can be persuaded to put upon this suggestion of Mr. Johnson's—what there is no knowing what may happen.

There can be no doubt that practical questions are better treated by men of experience than by persons who are not so highly favoured, and thirty years ought to be able to put in a strong claim to be heard. I am, however, afraid, that those who may possess Mr. Johnson's letter without due attention, will come to the conclusion that he has not made the best use of his time, and that a few plain words might benefit him. B. W. London, May 3.

THE NEW TARIFF—THE MINING INTEREST.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—On looking over the communication you did me the favour to insert in your last Journal, in which I endeavoured to point out to the Earl of Ripon the deplorable consequences that must inevitably attend the carrying out the new tariff; and thereby allowing the admission of foreign ores at so low a duty as to render the working of our home mines almost an impossibility, I find an error of so much importance, that it can only require your attention directed to have it immediately corrected. In alluding to the number of men thrown out of employ by the removal of the protecting duty on lead—some years back—to admit of the introduction of the produce of Spanish mines, it is there stated that 4000 only were discharged from the mines, whereas, you must recollect, that it was at least 40,000 persons who suffered from that injudicious interference with our national resources. To what extent the proposed alterations will interfere with the amount of labour required in our mining districts I must leave you to point out—to me it is frightful to contemplate. I am not aware whether the error originated with the printer or in copying.

Nottingham, May 5.

(The error, we find on referring to the copy, was a typographical one. We insert Mr. Johnson's letter, though we consider it hardly requisite, as all conversant with mining matters must have detected so palpable a mistake on reading.)

MINING IN IRELAND—KNOCKMAHON MINES.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—Having neither leisure nor inclination to indulge in newspaper controversy, particularly in relation to matters of a personal nature, it is with the greatest reluctance that I now have to request your insertion in the *Mining Journal* of the following statement, in reply to the unprovoked and highly disparaging remarks with which your anonymous correspondent, "S. A.," has thought proper to associate my name, in his reply to "Fair Play's" communication relative to these mines, published in your Journal of the 16th inst.

"Fair Play's" statement of the disastrous circumstances in which these mines were involved when in the year 1833 I succeeded Captain Davey as the principal agent of the Mining Company of Ireland, as detailed in the communication above referred to, is substantially correct in every particular; and subsequent results have fully established the fact, that they were reduced to the ruinous state described by "Fair Play," by mismanagement alone. I readily admit that a large and exceedingly rich course of ore had been discovered long before Captain Davey's dismissal from the service of the mining company; but it is well known to those acquainted with the past history of those mines, that although the returns for some time were very considerable, little, if any, profit was realised during the period of Captain Davey's management; and I am fully prepared to prove that, when I became the manager, so far from having a good mine to begin with—as "S. A." most unjustly insinuates I had—the company had sustained a very serious loss on the working during the half-year immediately preceding, as well as for a considerable time previously. I may also state that, at the time of my appointment to my present situation of manager of these mines, the productive ground worked by my predecessor was, with a very insignificant exception, exhausted, and the total produce of the mines did not then exceed sixty tons per month, whilst an efficient attempt whatever had been made by Captain Davey to extend the operations, or to explore those parts of the mines which have since yielded such large and profitable returns.

It certainly is not my wish or intention to speak of Captain Davey's conduct with reference to the working of these mines, in unnecessarily harsh or unbecoming terms, but seeing that both he and his anonymous friend, "S. A.," have thought proper, most unjustly, to question my claim to the credit of having succeeded, under the most difficult and discouraging circumstances, in establishing these mines, and rendering them—I trust permanently—profitable to the proprietors, I think I may with propriety be permitted, in concluding my observations on the subject, to ask Captain Davey why he did not retain his situation, as the principal agent of the mining company, if, as he states, his conduct in that capacity proved satisfactory to his principals? And, also, how it happened that, with a large course of ore to work on, he failed to render these mines profitable? Requesting an early insertion of this communication in the *Mining Journal*.

Knockmahon Mines, April 27.

I remain, Sir, your's, &c.,

METALLIFEROUS DEPOSITS OF SICILY.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—Having observed in your Journal of last week an article on the metalliferous deposits of Sicily, I have to request the insertion of the following remarks, being the result of personal observation and intimate knowledge of the project referred to. The society was not English, but formed in Paris, and originally formed solely with the object of working coal mines in Calabria; but, subsequently, on the report of the agent sent out, were induced to embrace, in addition to their original intention, the working of lead and copper mines. A small capital was subscribed, the intention being, on the development of the mineral resources of the country, to have laid the project before the public, and have raised the necessary capital.

It cannot be said that the results were unsuccessful, for the fact is, so far from seventy mines having been examined, or operations carried on, only five or six were tried, and those only for a few hours—to three, it must be admitted, a few months were devoted, and from these a very fair quantity of rich ore was produced, and, I may add, with this partial trial, all promised well, had there been but energy and capital to carry on the enterprise. Respecting the quantity of machinery mentioned, it consisted of a 20-horse pumping and winding engine for the coal mines in Calabria, crushing rollers for the lead ore. These were not made in Wales, but at the Horsley Works, and although of a most excellent description, as is generally the work of that establishment, the French engineers declared them of bad construction, and unfit for the purposes for which they were intended. In addition to this, two small stamping mills were constructed at Messina to supply the places of the crushing rollers. The commission mentioned paid a flying visit (a month in all), the greater part of the time being devoted to a visit to Calabria, where they declared what they saw not to be a coal formation, although on former occasions the parties concerned had shown specimens to scientific people in Paris and London, by whom it was pronounced most excellent, and, by the assay at Toulouse, little inferior to the quality required for the French contracts.

The commission scarcely visited any of the mineral or metalliferous districts of Sicily, but, on their departure, left behind them an assistant engineer to complete the details of a report.—It is right that you should know the real object was that the parties should have, *primis facie*, some grounds on which they could justify their withdrawal from the undertaking, being unable to carry it out, or to perform their part of the agreement. I can only state my opinion that, had the affair been placed in the hands of English capitalists instead of French, the result would have been very different. I shall be happy, on some future occasion, to afford you information as to the mineral deposits, and remain, Sir, &c.,

April 25.

AN OBSERVER.

[We are obliged to our correspondent for his communication in directing attention to the mines of Sicily, and correcting those errors into which the writer of the paragraph (quoted from a contemporary) inserted in last week's Journal appears to have fallen. We shall be glad to receive the additional information promised, which will, doubtless, be read with interest, treating, as it does, on a subject of the minerals of which we have but little knowledge.]

COAL MINING—ENGINE-POWER REQUIRED.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—I shall feel obliged by your inserting the following question, with a view to reply from any of your subscribers who may be able to furnish a view in point, or would give an opinion on the subject:—I have a vein of coal which dips six inches in the yard; circumstances make it more desirable to follow the vein down than to sink a pit; the deep water in England, and I wish to know what power engine would be required to work a "balley" down 600 yards, and to pump the water (which cannot be much in quantity, all the water being drained, and the vein not a wet one), the quantity of coal required to be brought up the "balley" every twelve hours is 100 tons.—If any of your readers can inform me of a deep working, in a vein of similar inclination, and where an engine was used, and satisfactorily done, I shall be obliged by him to give the name of the place where such a work may be seen in active operation.

Manchester, May 1.

A COAL PROPRIETOR.

GEOLOGY—A NEW SYSTEM OF PHILOSOPHY.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—As Mr. Montague does not think it worth his while to answer the many attacks elicited from the no doubt, indignant "Ferrum," you will, perhaps, permit one of your idle readers to venture a few remarks. "Ferrum," or, as Mr. M. most inaptly terms him, the "tenacious philosopher," tells us he is a geologist of the platonian school—a believer of the central fire, the granitic floor, &c. It is easy to understand, from Mr. Montague's letters, that he does not profess to be a geologist, his facts and opinions taking a more general range, and evidently including the several branches which constitute natural philosophy; he admits the facts of geology, but denies the conclusions drawn from those facts. If "Ferrum" will take the trouble to refer back to Mr. M.'s preceding articles, he will find nothing said of geologists being mortified and disconcerted in not finding the granitic floor in the boring of Grenelle. His question is a general one—Is the granitic floor to be found there or else, where? "Ferrum's" indignation is, therefore, wholly misplaced; but, speaking from my own knowledge, the generally assumed opinion of those fire worshippers was that, at or near the depth arrived at, they would find the water at the boiling point, and in quantities sufficient to supply all the old women of Paris with this essential auxiliary to their domestic economy, and the experiment has fully proved the absurdity of all their previous mathematical calculations on the increasing heat in descent. "Ferrum" has not removed the charge of inconsistency of measuring the depth of this supposed granitic floor, nor has he offered a single argument to prove the intervening depth of the strata between the tertiary and the granitic floor, or the nature of that floor; his illustration of a steam-engine boiler is as *mal à propos* as his teakettle, for, as Mr. M. justly argues, the ocean bed is as one with the heated nucleus, and undoubtedly contains abundance of inflammable matter, thereby adding to the central mass, and not interposing between heat and the water, like the plates of metal interposed. Mr. M. argues upon the opinions expressed by geologists, and, so far, his inferences are fair, unless "Ferrum" can show that the lower beds of the ocean are not nearest to the central fire; the substituting of the granitic band for iron plates would scarcely serve the purpose, being at direct variance with the theory of *splitting* advocated by the same parties. Mr. M. does not say the ocean waters would be very hot, but that, supposing, in accordance with geological theories, the bed of the ocean was at a degree of, or even near, white heat, some of the natural phenomena would be manifest; and, in proof of this, I have to observe, that, being off the coast of Sicily about eighteen months after the remarkable volcanic eruption beneath the waters, although the ejected material had subsided, the proofs of action were even then manifest, evolutions of gaseous matters continually taking place, and the waters over the whole area affected, presenting a similar appearance as when oil is cast upon them; and here, be it observed by "Ferrum," portions of this space were unobtainable. In a general view, the depth of the ocean is not so considerable as supposed by him, and if the body of water be great, and extend over a vast area, so must also this heated nucleus be of vast magnitude and force. I think it a great pity that Mr. Montague cannot find some of his opponents brains, as well as matter, whereon to pin an argument, or to call forth abuse. Some find fault with his still and scientific terms, although, in his humble opinion, by avoiding the jargon of geologists, he rather merits our praise than our censure. One pious divine complains he reads nothing new in *Atheism* beyond what is attached to collegiate education; others offer their advice, and will patronise upon conditions; for myself, I only say, that, as a reader of your highly interesting Journal, I shall rejoice to find his supposed facts and opinions fairly tested by those who are competent to do so, confessing myself wholly inadequate to undertake the task.

London, April 26.

WELSH IRON WORKS—BLAENAVON COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—In your Journal of the 23d ult. you published a paper, entitled "Description of the Mill, Forge, and Furnaces of a Welsh Iron Work," by T. G. Hardie, Esq., C.E., on which I have made some remarks, and your insertion of them would be rendered a favour. The author of the paper referred to (Mr. T. G. Hardie) certainly did many wonderful things among the Welsh iron works, especially at Blaenavon, where he pulled down one old furnace and put up another in its stead, very wide, indeed, above the bushes—a big-belly blast furnace. This furnace was to do wonders, but, when set a-going, it proved a miserable affair; moreover, the same "C.E." had cramped it together, with wrought and cast iron, immensely strong—that is, he bound up the belly, so that it was no easy matter to get it out of the furnace; about sixteen tons of iron were taken out of the bushes, &c., to secure a new in-wall, and to narrow the belly of this new-fashioned blast-furnace. In fact, it cost as much money to alter the furnace as it would have cost to build a new one, upon a right principle. The furnace being altered, and made much smaller in the belly, now goes very well. Now, that is the only furnace Thomas G. Hardie built at Blaenavon (he began three others, which were raised to the bushes, and there they stand); how is it possible for that gentleman to tell the members of the Institution of Civil Engineers, that, by his big-belly furnace at Blaenavon he made a great saving in fuel, regularity of work, and improved quality of iron, when nothing scarcely could be done with his furnace until it was altered—that is, made smaller in the middle—when it was found to go well. The same "T. G. Hardie, C.E.," did, indeed, put up a balance machine, to lift iron from the casting-houses up to the coycrard, which cost a great deal of money—some thousands of pounds; that, also, has been a losing concern; the transfer of iron from the works was taken cheaper by the usual method of transfer before that balance concern was put up. The aforesaid "Thomas G. Hardie, C.E.," did most certainly alter a forge for the Blaenavon Company, but the whole of his alterations have undergone improvements since he left it; he also did many more things here—some of them are altered, and in some—others stand as he left them, never "were of any use, nor ever will."

Blaenavon, May 2.

M. T. M.

EXPLOSIONS IN COAL MINES.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—Assertion put in the place of proof, balakerna either an attempt at imposition, or incapacity to wield the question—which of these is the fact of your Newspaper correspondent I know not. Having searched your Journals in vain to find the letter from which you have thought proper to borrow for your leader of the 23d of April last, I must be content, at present, with analysing the small portion contained in that leader, and, if you will tell us where to find the whole of it, you will oblige. If your readers will look at the 132d page of No. 348 of your Journal, published on the 23d of April last, they will find the following quotation:—"I know too well the custom further south, where gross ignorance prevails; for instance, the surgeons, in this case, seem to have been the directors of operations in getting at the sufferers—no viewers appear to have been directing matters—on that between spirit and ignorant proceedings, even after an explosion, lives may be had on a ghastly—on the most of them are lost by the 'after-damp' that ensues." On reading this statement, Mr. Editor, I confess I was pained to ascertain what he meant by what he said, but not from the profundity of thought in it. He says, "I know too well the custom further south, where gross ignorance prevails;" this appears to be the idea he meant to convey, a considerable portion of what follows, being, what is technically called, garbled, or the same idea compressed and illustrated (?). In the first place, the idea is absurd, because it is indefinite, further south, may mean the next southernmost colliery in his own, or he may have the British Isles altogether; and, secondly, I fail, in its most material part—*viz.* *garbled*—which we shall shortly see. But he says he knows; and, fourthly, because he says he knows the fact of his assertion, we are to take his dicta for truth? This is what he meant by calling the question. Although a sweeping assertion like the present, carried with it to thinking and reasoning minds its own condemnation, yet we cannot allow the question of infidelity to be raised, much less put it uncontroverted, in the bosom of our generation. We throw the false implication back in his teeth, and require him to prove its truth—certainly we have not lost for your correspondent, who knows so well. Has your correspondent had the management of a colliery in the north? Has he witnessed millions in the north? Has he been in danger, from mismanagement, in the north? He says he knows, pray let him tell us how, where, and when, he obtained his knowledge. But we will proceed with his compressed assertion, and endeavour to find in what this gross ignorance consists. But, oh! tell it not in Newcastle, nor let the northern miner know, lest he should lower their respect, committed, opportunity, that the gross ignorance of the south (and your correspondent tells us so), is not in capitalisation.

not in his profession—is not in the principles of pneumatics—but consists, what?—Why, the reporter of a country newspaper having told him that Dr. So-and-so acted with prudence and attention, was indefatigable in his endeavours, &c., &c., and having, at the same time, neglected to speak of the exertions of the manager. From this he jumps to the conclusion, that there was no qualified person to superintend the operations—a supposition as unlikely as untrue; but even if we suppose that, owing to circumstances, the manager might not be within call at the moment, is there anything here whereon to found, much less to prove, the charge of gross ignorance of coal mining in the south? The onus of proof rests with your correspondent. The remaining portion of his sentence has as much to do with the first as I have with the man in the moon; the first refers, or is meant to refer, to a particular case—which, together with its garnish, we have examined; but the latter portion, “so that between spirited and ignorant proceedings, even after an explosion, lives may be lost or gained—as the most of them are lost by the ‘after-damp’ that ensues,” whether intended for a moral for the preceding, or an attempt at a fresh one, is wholly out of place; and the whole sentence exemplifies the truth of the old adage, that, “when the judgment is weak prejudice is strong.” I call upon your correspondent to substantiate his assertions if he can, and to define the meaning of the word “south.” Having written as much, Mr. Editor, as you can probably find room for, I will conclude, and shall return to the remaining portion of your leader (and which refers more particularly to your observations) in an early Number.

Buryley, May 2.

[From a full knowledge of the ability and practical experience of the correspondent from whose letter we quoted the objectionable remarks, we have all reply to him, being well assured that he will not fall answering the call, and, at the same time, we hope, put forth some grounds—“the where and the when”—on which to form a basis for his stringent comments on the practices in the south.]

ACCIDENTS IN MINES.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—A correspondent writing to your Journal concerning the lamentable accident by “fire-damp” at Flowerly Field Colliery, says—“Would it not be well for some spirited owner to submit his colliery to the inspection of the more experienced northern viewer?” The more experienced northern viewer! Experienced in what? Why, in no part of the whole world has there ever been such destruction of human life by “fire-damp” as that experienced in the north of England collieries. Experienced viewers, indeed!—experience with a vengeance.

—Iron Works, South Wales, April 30.

BLAENAVON IRON AND COAL COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—I was much pleased to find by your last Journal some explanation of the refusal to admit your reporter to the meeting of the above company, though it is pretty evident that but for your hints as to the true cause it would not have been forthcoming. Can the proprietors consider this a satisfactory report? I should say, by no means. The directors boast of a reduction of 1000*l.* per annum in the expenditure, but why things should have been so conducted as to leave any cause for such a reduction I cannot conceive. We find also that a sum of 645,859*l.* 17*s.* 9*d.* has been spent since the formation of the company—and in what? Have the directors anything to show for such an enormous expenditure? One furnace has been rebuilt, and a “lift” constructed, which cost upwards of 4000*l.*; and now it is found that the old plan of raising materials (to save which the “lift” was built) is nearly, if not quite, as economical and efficient. The foundations of new furnaces and works have been laid on a most extensive scale almost ever since the company was formed, and there is not much chance of their being proceeded with for some years to come at least. There is also an item in the report of 362*l.* for expenses in London—a very considerable sum for an office establishment.

Now, does not all this, may I ask, look like gross mismanagement? It is time that the shareholders should throw off their lethargy, and insist on a thorough reform in the whole management, and, until this is done, it will be useless for them to expect any return for their capital in the shape of a dividend.

ON WATER-WHEELS.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—Your correspondent, Mr. W. Wheeler, seems to doubt the accuracy of my statement in the Journal of the 16th ult., but I think if that gentleman's long practice had led him to build his wheels so that they should carry their water down seven eighths or nine-tenths of the diameter of the wheel, instead of two-thirds, as he does, according to his calculations, he would not have had any occasion to doubt. The wheel that I there alluded to does not lose any of its water before it gets ten feet below the centre, or it carries the water thirty feet from the top before it loses any, and it does not lose the whole before it gets within two feet of the bottom of the wheel. Then, to $30 \times \frac{3}{4} = 22\frac{1}{2}$ feet; deduct for friction on wheel, and friction on pumping, one-fourth, 5*ft.* 5*in.*, leaves 25*ft.* 3*in.* the effect, or as 25:5 is to 49, or nearly as 2 is to 3, as I before stated. What Mr. W. W. means by calling half the circumference the radius I do not know, but it appears to me that he has mistaken the meaning of the author he alludes to. I have always understood the semi-diameter, and not the semi-circumference, to be the radius of a circle—I should be glad if Mr. W. W. would put me right.

Bickley, May 2.

RAILWAY CHARGES—SOUTH EASTERN LINE.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—I beg to direct your attention to the accounts of the South Eastern Railway, and the enormous charges for the small quantity of works on that line; also to the charge of 350,000*l.* or 400,000*l.* for a moiety of the line common to the Brighton and South Eastern, between Croydon and Red Hill—a charge of 100,000*l.* being much nearer the real value of the works and land. As a shareholder in this and other railways, I feel the absolute necessity of more than ordinary vigilance on the part of the railway press—at least, that portion not under the control of the directors, engineers, and contractors. The 760,000*l.* about to be raised cannot be required if the works have been fairly contracted for in the usual manner for public works.

AGASS.

THE IRON TRADE.—The *Staffordshire Examiner* contains a lamentable account of the depressed condition of the iron trade, from which we learn that a large number of forges in this neighbourhood have ceased work, whereby a number of hands are thrown suddenly out of employment. We are informed that lack of orders, even at unreasonably low prices, has compelled many of the masters to stop their mills and discharge their men, and that it is very uncertain when they will recommence. Among the extensive forges closed are those of E. and G. Tinsley (Walsley), Russell Brothers, George Jellison, and G. J. Thornycroft (Stokebury Iron Works). Several other extensive works are daily expected to cease operations; indeed, we believe, there is not a single forge owner who does not contemplate the necessity of stopping. The most flourishing of them freely admit that if they could ensure the return of their customers and workmen when it suited them to recommence they would forthwith discontinue their works.—This statement, we repeat to say, is corroborated by our own reports, and corresponds with—“More iron is now making than the demand calls for, and the masters are tired of ‘the longer,’ which, like all previous ones, is only bleeding on honest men—what will the trade come to?”

IMPORTANT INVENTION.—REARER STEAM ENGINE.—The *Proprietor* of a *London* announces the invention of a new steam-engine by Messrs. Stewart and Moffat, of Glasgow, in the House of Commons. “It is not (says the *Journal*) upon the high or low-pressure, but on a rotary principle. It will require a comparatively very narrow space, leaves no chance of loss of steam by dilatation, and is so simple that even the most unskilled person may manage it. Its cost will be little, if anything more, than half of the present engines. Hitherto, the force of steam-engines has not been found to exceed 300 horse-power, but this new machine may be brought up to 1000 horse-power. This statement, so important in the science of Mechanics, is attested by a report from the *Commissioner of Glasgow*.”

IRON BRIDGE.—It is strange that the plan of making bridges of iron wire, so successfully adopted in Switzerland, France, and elsewhere abroad, should not yet have found favour enough in England to be fairly tried on the large scale; the whole bridge at Freyburg, in Switzerland, is 261 feet wider than the Menai Bridge, and though it consists of one span, it is at least equally strong, and cost only a fifth part of the money. The bridge of Freyburg is 870 English feet long; that of Menai 549. The Menai bridge cost 1,120,000*l.*, that of Freyburg, 25,000*l.*—*Patheux*, by Captain Burt Allen.

ON THE SYSTEM ADOPTED IN WORKING MINES AND COLLIERIES.

Following up our observations from last week's *Journal*, on the “conclusions” arrived at by the commissioners appointed “for Inquiring into the Employment and Condition of Children in Mines and Manufactories,” we find, in regard to ironstone mines, that, from the far heavier nature of the labour, older and stronger children are of necessity employed, while the pits in general are less perfectly ventilated or drained than the coal mines—consequently more unhealthy, producing the same physical deterioration and the same diseases, but in a more intense degree.

With respect to blast-furnaces, for reducing the ores of iron, the commissioners state that the operations connected with these works involve the necessity of night work, in which both children and adults participate, on alternate weeks; the greatest objection appears to be in their having to sometimes their employ throughout each alternate Sunday—but which custom, however, is partially abandoned by some of the more considerate proprietors.

The underground labour in tin, copper, lead, and zinc mines, is described as being conducted on a far different system to that pursued in collieries—but very few children are employed at all, and there is no single instance of a girl or woman being engaged in that description of work; it is in the Cornish district alone that children are employed, and there they have sufficient food, with decent and comfortable clothing. The employment is not in general productive of apparent evil effects in early life, though essentially, from its nature, injurious in after life, which is much increased by the younger persons being placed in partnership with adults, thereby stimulated to exertions greatly beyond their age and powers, and thus, in a few years, it is too frequently proved that they have expended “the whole capital of their constitution.” This result may also, in some measure, be attributed to the fatigue of climbing the ladders—hitherto, in general, the only means by which mines can go to or return from work; but the principal cause of the rapid deterioration of health and strength in miners is the prevalence of noxious air, the difficulties connected with the purification and renovation of which, and, indeed, the whole subject of ventilation, being incomparably greater in these mines than in collieries. With regard to surface employment, in the same mines, the commissioners agree, that though great numbers of girls as well as boys are engaged at an early age, the nature of the work is wholly free from the evils connected with underground labour, and, with the exception of occasional exposure to the inclemency of weather, besides the occupation of “banking” and “jiggling” (which is gradually being superseded by machinery), there is, in this branch of mining industry, nothing injurious, or even incompatible with the maintenance of robust health, which, indeed, is described as the general condition of the workpeople; the children and young persons have commonly sufficient food, warm and decent clothing, subject to no harsh or tyrannical treatment, and enjoy an almost complete immunity from serious danger.

In the smelting works, which are generally constructed near where the ores are raised, no children, and but few young persons, are engaged, with the exception of North and South Wales, where a number are employed, from nine years upwards (in South Wales, girls as well as boys), of whom those engaged at the calcining furnaces regularly work with the men twenty-four hours consecutively, on alternate days, not exempting Sunday—a term of work generally extending to thirty-six, and sometimes even to forty-eight hours, when, as in South Wales, the “long watch” includes the Sunday.

The commissioners, in conclusion, state they have endeavoured to present a faithful account of the “actual state, condition, and treatment” of the children and young persons employed in the “collieries and mines of the United Kingdom,” and “of the effects of such employment on their bodily health;” but the effects of the employment on their “morals” they intend to reserve for their next report.

MINING CORRESPONDENCE.

ENGLISH MINES.

ROXBOROUGH MINING COMPANY.

May 2.—I beg leave to inform you that the ends at the 110 fathom level, west of Forest's mine, and east of Dingle's mine, are without alteration since last reported. The level in the 100 fathom level west is still about 10*ft.* per fathom; in this level east the level is disordered, being at present divided into small branches; the level in the eastern stopes, in the back of this level, is eighteen inches wide, and worth 30*ft.* per fathom; the level in the western stopes, in the back of ditto, is two feet wide, and worth 50*ft.* per fathom. In the ninety fathom level west the level is twenty inches wide, and worth 30*ft.* per fathom; the level in the eastern stopes, in the back of this level, is sixteen inches wide, and worth 20*ft.* per fathom; the level in the middle stopes, in the back of this level, is about sixteen inches wide, and worth 20*ft.* per fathom; the level in the western stopes, in the back of ditto, has not been taken down during the past week. In the thirty fathom level east the level is ten inches wide, and intermixed with ore; Hitherto's shaft is sunk about seven fathoms below this level, and still progressing in favourable ground; the level in the stopes, in the back of this level, is eighteen inches wide, and worth 30*ft.* per fathom. The Parjack level, in the seventy fathom level, west of Wall's shaft, is one foot wide, with stones of ore. The level in the sixty-two fathom level, east of Bray's shaft, is still about eight inches wide, and unproductive; in this level, west of Hitherto's shaft, on the north side, the level has greatly improved during the past week, being at present twenty inches wide, and worth 10*ft.* per fathom. The tribute pitches are still looking favourable; we weighed on Friday last March ore, 312 tons 13 cwt. 2 lbs., and sampled April ore, computed 208 tons, of fair quality.

F. PHILLIPS.

WEST WYRAL JEWEL MINING ASSOCIATION.

May 2.—The seventy east, on Wyrall Jewel level, is eighteen inches wide, kindly, and the ground favourable for driving. The fifty seven east, on this level, is worth 12*ft.* per fathom; and in the wings sinking in the bottom of this level the level is worth 10*ft.* per fathom; the fifty seven east, on the south branch, is worth 7*ft.* per fathom; at the fifty seven east, on Buckingham's level, this level is still disordered by the cross-course. At Quarry shaft, sinking below the thirty, on Tolraus level, the level contains good stones of tin.

TRIGOLLAN MINING COMPANY.

May 2.—I beg to inform you that the level in extending the forty fathom level east is still large, and producing ore, worth 4*ft.* per fathom. The ground in the cross-cut, going north at this level, is much improved since my last, which looks promising for the level that is still below us. We have succeeded in sinking Baker's shaft a few feet below the forty fathom level, but find the water to be so much that we cannot proceed any further until we get down the new pitwork, and hope to complete it in the space of a week or ten days more. We have sampled to-day computed fifty five tons of copper ore.

JAMES NIXON.

UNITED MILLS MINING COMPANY.

May 3.—Williams's Shaft—Lode three feet wide, producing some good ore. Sixty Fathom Level, East End—Lode three and a half feet wide, very good ore; no alterations in the western end. Fifty Fathom Level—In the stopes, back of this level, the lode is two feet wide, good ore. East of Jones's Shaft—Lode two and a half feet wide, eighteen inches good ore. West of Diagonal Shaft—Lode five feet wide, coarse in quality. Diagonal Shaft—Lode two feet wide, a little improved for ore since last week. Forty-six Fathom Level, Eastern End—Lode two and a half feet wide, producing but little ore; no ground driven in the western end for the past week. Forty Fathom Level—Lode two feet wide, coarse in quality. Thirty Fathom Level—Lode one foot wide, producing good ore. Twenty Fathom Level—Lode three feet wide, producing some stones of ore.

N. LANGDON.

YANAR SILVER-LEAD MINING COMPANY.

May 2.—Last Saturday we held our usual meeting, when we set twenty-three pitcheas, and there were thirteen others—the men's time not expiring until another month—making a total of thirty-six pitcheas, employing ninety-three men. The prospects in the levels are as follow:—In the 125 fathom level the lode is two feet wide, carrying small branches of ore. In the 115 fathom level the lode is one foot wide—carrying work. In the 105 fathom level the lode is eighteen inches in width, composed of soft grey, mottled, and silver-lead ores. In the ninety-five and the lode is from two to three feet in width, carrying good branches of ore. In the eighty-five fathom level the lode is three feet wide, composed of copper, blue ore, mottled, and some ore. In the seventy-five fathom level the lode is two feet wide at present—rather poor. In the sixty-five fathom level the lode is one foot wide, chiefly composed of copper, intermixed with ore. In the fifty-five and we are still in clay ground. In the forty-five and the lode is three feet big, producing some good work—a promising result. In the thirty-five fathom level the lode is one foot wide, composed of copper, and a small quantity of ore.

J. BRADGUE.

BRADGUE CONSOLIDATED MINING COMPANY.

April 30.—I beg to inform you that we held our sitting for May of these mines yesterday, for particulars of which I beg to refer you to the sitting report. In the east end, of the sixty fathom level, we have very recently cut an east and west level underlying south, but amount of present benefit to size or quality of the lead ore in this and in split into two branches, each yielding good work for lead ore; the lode in the south end, at this level, is four inches in width, producing some good work. In going south, of the fifty fathom level, on the last level, it is about ten inches wide, but at present unproductive; in the north end, at this level, the lode is four inches wide—ready. The upper level going east, at this level, is about eighteen inches in width, composed of copper, silver, white mottled, and good stones of ore; in the western end, at this level, the lode is one foot big, with copper, grey, mottled, and ore. In going south, at the forty fathom level, the lode is six inches wide, good sorting work.

F. R. BOWEN.

THETOL MINING COMPANY.

May 2.—The lode in the forty fathom level, east of engine-shaft, is fifteen inches wide, producing some good ore. The lode in the wings sinking under the thirty fathom level, east of Williams's shaft, is two inches wide, very good tribute ground; the lode in the thirty fathom level, east of Williams's shaft, is small, and unproductive; the lode in the stopes, in the back of this level, is not quite so good as it has been. The lode in the twenty fathom level, east of Williams's shaft, is ten inches wide, and producing a small quantity of ore.

H. WILLIAMS.

J. MORCOM.

TRISTOL CONSOLS MINING COMPANY.

April 30.—In sinking Christie engine-shaft the lode is one foot and a half wide, worth about 10*ft.* per fathom. The seventy west is still disordered. In the seventy east the lode is nine inches wide, favourable, but without much ore. The sixty west is two feet wide, with some ore. The sixty east is one foot and a half wide, not much mineral. The fifty west is suspended for the present, to rise against a waste coming down from the level above. The forty is twelve inches wide, kindly, with stones of ore. In sinking Good Fortune shaft, under the forty-four, the lode is fifteen inches wide, worth about 10*ft.* per fathom. The forty-four east we have set to drive on tribute. There is an alteration in any other part of the mine.

W. RICHARDS.

VINCROFT MINING COMPANY.

May 2.—Since my last report we have taken down the lode in each end, at the fifty fathom level, and I am glad to say that the ore which we get from them fully corroborate my opinion as to their value, which I calculate to be 20*ft.* per fathom—they are at present worth about that sum, and likely to continue; the ends are now about three fathoms from the shaft; we shall now open a pit, and commence sinking under the fifty as quickly as possible. The lode in the forty end west is four feet wide, and producing good quality copper ore, worth 25*ft.* per fathom. The lode in the wings sinking under the forty continues much the same as to size and quality as it has been for some fathoms—worth from 20*ft.* to 25*ft.* per fathom. Other places throughout the mine continue much the same as for some time past.

W. PAUL.

WOLFELOW MINING COMPANY.

April 30.—We have put the stopmen to prepare to sink Roberts's engine-shaft under the 100 fathom level, on Wharf Dolphin lode. The 100 Fathom Level, east on this lode—The lode is three feet wide, producing rich stones of ore. The 100 Fathom West—The lode is two feet wide, producing one ton of ore per fathom. Ninety Fathom Level East—The lode is two and a half feet wide, with rich stones of tin. Ninety Fathom Level West—The lode is two feet wide, with stones of tin, and some ore. Eighty Fathom Level West—The lode is two feet wide, worth 10*ft.* per fathom for ore. Seventy Fathom Level West—The lode is eighteen inches wide, six inches good lode for tin. Garby's shaft is holed to the eighty fathom level. Sixty Fathom Level—The lode is three feet wide, producing good stones of tin. The 100 Fathom Level West—The lode is five feet wide, with stones of tin. The 100 Fathom Level, east of Parsons's Engine-shaft—The lode is two feet wide, with rich stones of tin. The 100 Fathom Level West—The lode is three feet wide, producing stones and some tin. Orchard Lode—Fifty Fathom Level, east of New Engine shaft—The lode is six feet wide, with stones of ore and some tin. Wings sinking under the Forty Fathom Level—The lode is three feet wide, with stones of tin. Forty Fathom Level East—The lode is three feet wide, with stones of tin. There is an alteration in the other parts of the mine since last report. I am happy to inform you, that on Thursday last we got the steam-whim to work, which promises to be a good machine; she is now drawing from the bottom at a good rate; it will, no doubt, be a great saving to the adventurers in expense—besides, we shall be able to keep the eastern part of the mine much clearer of stuff. You will receive herewith the setting report for yesterday's sitting, together with the accounts, &c., for March.

J. SEATON.

FOREIGN MINES.

BRASILIAN COMPANY.

Cuba Branca, Feb. 18.—The produce of this week will, I anticipate, exceed the last, but we have been very short of hours stamping, in consequence of water being in the mine. All exertions are being made to forward the new pumping-engine.

Feb. 20.—You will observe a much larger quantity of ore has been stamped, but as we have not had a fair proportion of the Ouro Fino ground (in consequence of being employed putting in stuff west), it will account to you for the average tonnage per lb. of gold being greater. From the late rains our water power is considerably increased, and now being able to keep the water level in the mine, will, I trust, give us a better return for the ensuing week. The gold will leave this on the 6th proximo.

Gold return for three weeks, to 25th February:—31 lbs. 10 oz. 9 dwt. 16 grs.

W. T. GRIFITHS.

MINE ACCIDENTS.

St. Ives Cassels Mine.—A fatal accident occurred last week in this mine. Two men, W. Daniel and M. Daniel, father and son, were engaged in blasting a rock, when it prematurely exploded, and killed the father on the spot; the son was severely injured, and had an eye by the explosion.

Middle Bank Copper Works.—A furnace man, named G. Henry, was scalded so severely at the Middle Bank Copper Works, on Tuesday week, as to cause his death. He was engaged in taking the metal out of the pan—a square iron box suspended over the tapping pit—when, by the fastening of the pan giving way, he was precipitated with it into the pit full of boiling water. His fellow-workmen ran instantly to his assistance, raised him out of the water, and carried him home, where he received the most prompt medical attention, but the injuries he had received were so great, that he died, after suffering the most excruciating agonies, within twelve hours from the time of the accident.

Great Wheel Charlotte.—On Wednesday last, as some men were engaged in the Great Wheel Charlotte Mine, St. Agnes, in taking up the materials out of the engine-shaft, the timber upon which they were standing gave way, and two men, named J. Seymour and T. Sherman, were precipitated to the depth of ten fathoms. On being taken up, it was found that Seymour had both his arms broken, one eye damaged, and his back severely injured, in consequence of which he now lies in a very precarious state. Sherman had his thigh broken, and sustained other serious bruises.

Patal Coal pit Accidents near Wigan.—On Saturday morning last, as a collier, his wife, and a boy, were descending one of the coal pits belonging to Mr. Whitley, of Lane, near Wigan, the basket unfortunately gave way, by which the poor woman was precipitated to the bottom, and her body literally broken to pieces; it appeared that they had not gone far down the shaft when the poor woman, discovering that the basket, on the side on which she sat, was hooked between the rails instead of in the eye, instantly requested her husband to lay hold of the chain, in which he fortunately succeeded; and the boy, who was laid on the bottom of the basket, preventing the woman about to fall, grasped one of the legs of the man, who afterwards twisted the other round him, and to this position they were both locked in safety.—On the same morning, as two colliers were descending Mr. Ashby's pit, Plattina, Wigan, the basket in which they sat came in collision with the ascending one, by which they were upset, precipitated to the bottom, and killed on the spot.—We are also informed that two colliers lost their lives to a similar cause, on the same morning, at the Broadbent Colliery, near Wigan.—On Monday forenoon an explosion took place in one of the coalpits belonging to Mr. George Hilton, of Ince, which created some alarm in Rochdale, Wigan, for it was well known that several colliers from that neighbourhood were at work in the pit; fortunately for them, the occurrence took place in the shaft-end mine, and the fire running along the roof, the parties escaped injury by lying down; but it happened in the four-foot mine, the consequences must have been most disastrous. Several of them were thrown from their positions, and received a few cuts and bruises, but none of them appear to have sustained any serious injury.

Explosions in Mines.—After such explosions the air is loaded with an enormous proportion of carbonic acid, which prevents prompt combustion to the workmen, while it is evident that the oxygen of the air is out, in a variety of cases, exhausted by the explosion. It is rendered breathable, however, by 5 to 10 per cent. of carbonic acid. The best means of neutralizing that acid rapidly is to introduce a mixture, in equal parts, of slaked lime in dry powder, and glauber salts, which absorb the acid with extreme avidity. A room containing air vitiated by any noxious gas whatever, may be entered without danger by causing the air to filter through a cushion on each truck, filled with this mixture placed carefully over the mouth.—*Annals des Mines.*—[This, if the statement be worthy of reliance, would be an easy and excellent method of restoring safety and promptness to the relief of persons deprived of motion by descending instantaneously into wells and vaults charged with foul air.]

EMPLOYMENT OF PRISONERS AND CHILDREN IN COLLIERIES, &c.—The presentation of petitions from Oldham, Manchester, Leeds, &c., in the House of Lords, last night, by the Bishop of Norwich, afforded an opportunity of expatiating on the distressed condition of those wretched beings, whose hard fate compels them to submit to the degrading and exhausting employment in collieries, and which has been so frequently exposed through our columns.—Lord Fitzgerald said it was impossible to exaggerate the importance of the subject, but thought the petitions mentioned in the petitions were only local, and not general; and the Marquis of Londonderry took an opportunity of declaring that, in the districts of the Tyne and Wear, such hardships on those described in the petitions presented were wholly unknown.

